# METHOD AND APPARATUS FOR IMPROVED BIT RATE EFFICIENCY IN WAVELET BASED CODECS BY MEANS OF SUBBAND CORRELATION

## ABSTRACT OF THE DISCLOSURE

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An encoder (1600) and decoder (1700) for improving bit rate efficiency in a wavelet based codec includes an analysis filter bank (1601) for decorrelating the input data signal. A set of decimators (1701) are used to down sample the filtered input data signal and a predictor (1705) is used to extract cross subband dependence. The predictors (804, 904, 1104, 1204, 1304) are used in order to reduce the number of bytes of an encoded input data signal X(Z). The predictors exploit existing correlation amongst the subbands resulting from a multi-level analysis wavelet transformation or filter bank processing. Decimation required by the analysis filter bank is placed around the predictor on the basis of spatial location variance minimization to further facilitate subband prediction, and on computational complexity of the overall system.

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